

WE CLAIM:

1. A retaining spool for a PC board for retaining a length of fiber optic cable comprising:

- 5 a body portion, the body portion including a channel formed about the periphery thereof for receiving the fiber optic cable in an arc having a radius greater than a minimum bend radius of the fiber optic cable; and
- a plurality of legs extending from the body portion, each of the legs adapted to be received in an opening formed in the PC board.

10

2. The retaining spool of claim 1 wherein the body portion includes a center portion and upper and lower flange portions.

15 3. The retaining spool of claim 2 wherein the center portion is cylindrical.

4. The retaining spool of claim 2 wherein the upper and lower flange portions define the channel with the center portion.

20 5. The retaining spool of claim 2 where the body portion includes a plurality of posts formed on the center portion, the posts extending in a generally axial direction, the posts being inserted into corresponding openings formed in the upper and lower flange portions for positioning the flange portions on the center portion.

25

6. The retaining spool of claim 2 wherein at least one of the lower and upper flange portions includes at least one tab positioned to close the channel for retaining the fiber optic cable therein.

30

7. The retaining spool of claim 1 wherein each of the legs includes a foot portion formed at the distal end of each the leg, the foot portion adapted for securing the retaining spool to the PC board.

5 8. The retaining spool of claim 7 wherein each of the legs includes a cross piece positioned between the foot portion and the body portion.

9. The retaining spool of claim 1 wherein the legs extend from the body angled outwardly with respect to the axial direction.

10

10. The retaining spool of claim 2 wherein the legs are attached to the lower flange portion at an outer edge thereof.

11. The retaining spool of claim 2 wherein the legs are attached to the central portion from an inner wall thereof.

12. The retaining spool of claim 7 wherein each foot extends at an angle from each the leg.

13. The retaining spool of claim 7 wherein each foot is formed at an orientation substantially parallel to the plane of the PC board when the retaining spool is affixed thereto.

14. The retaining spool of claim 1 wherein the retaining spool includes four legs.

15. The retaining spool of claim 1 wherein the retaining spool is made of a resilient material.

30

16. The retaining spool of claim 15 wherein the resilient material is one of metal and plastic.

17. A PC board and retaining spool assembly for retaining a length
5 of fiber optic cable thereto, comprising:

a PC board including a plurality of mounting openings;

a retaining spool, the retaining spool including a body portion defining
a channel thereabout and a plurality of spaced legs attached to the body
portion, the legs being positioned in the mounting openings to secure the
10 retaining spool to the PC board; and

a length of optic cable retained in the channel of the retaining spool.

18. A method of operation of a retention spool adapted to be
mounted directly to a PC board for retaining a length of fiber optic cable
15 thereto, comprising:

providing a channel about the periphery of the retention spool, the
channel having a radius greater than a minimum bend radius of the fiber optic
cable;

providing a plurality of openings through the PC board in a spaced
20 apart configuration;

applying pressure to a plurality of legs on the retention spool;

inserting each the leg into a corresponding one of the plurality of
openings on the PC board;

releasing pressure from the plurality of legs to retain the retention
25 spool to the PC board;

inserting the length of fiber optic cable into the channel in the retention
spool; and

retaining the length of fiber optic cable to the retention spool.

30

19. The method of claim 18 wherein retaining the length of fiber optic cable to the retention spool includes closing a tab member of the retention spool to close the channel.